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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,719	09/05/2003	Stephen M. Kroon	D/ A3379	8793

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PATENT DOCUMENTATION CENTER
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EXAMINER
CASCHERA, ANTONIO A

ART UNIT	PAPER NUMBER
2628	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/655,719	KROON, STEPHEN M.	
	Examiner	Art Unit	
	Antonio A. Caschera	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7 and 8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7 and 8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kisor et al. (EP 0683599A1).

In reference to claims 1, 3 and 8, Kisor et al. discloses a method and apparatus for processing a dithered bi-level image to produce a compressed image (see column 1, lines 46-47). Kisor et al. discloses first converting the bi-level image into a block pixel count data file that specifies or lists the number of black pixels contained in blocks of pixels in the dithered bi-level image (see column 4, lines 36-40). Note, the Office interprets the number of black pixels of Kisor et al. equivalent to the "marked pixel count M" and the blocks of pixels of Kisor et al. equivalent to the "plurality of N-pixel tiles" of Applicant's claims. Further, Kisor et al. explicitly states that such block pixel processing is associated with image data taken from a photograph using a scanner and then sent through a dithering process or image data which is, "pre-halftoned" (see column 8, lines 9-22 and #60, 62 and 64 of Figure 2). Kisor et al. also discloses decompressing the compressed block pixel count data file utilizing pattern sets which represent the 256 different ways in which the human eye can perceive the shades of gray (see columns 10-11, lines 43-34). Note, the Office interprets such patterns of Kisor et al. functionally equivalent

to the reference tiles since such patterns represent all possible regular viewing of gray colors by the human eye. Kisor et al. further discloses matching a pattern with a block of pixels using the block pixel count number and the same number of black pixels in the pattern (see column 11, lines 35-55), more specifically selecting the correct block pixel pattern of the pattern sets having the same or substantially the same numbers of black pixels defined by the numbers in the block pixel count file (see column 6, lines 39-44). Note, the Office interprets that in order for Kisor et al. to "select" the correct pixel pattern from the pattern sets, some sort of comparison or "test" between the number of black pixels in the pixel pattern and block pixel count file is inherently performed. Further note, even though Kisor et al. may state that the patterns are randomly selected (see column 6, lines 39-40), it is further found that Kisor et al. explicitly discloses that they are "randomly selected...in accordance with said numbers in said block pixel count file," (see column 6, lines 40-43). Also, in reference to claim 3, the photograph image used in producing the dither bi-level image of Kisor et al. is seen as functionally equivalent to the, "original data" of Applicant's claim 3. Further, Kisor et al. discloses the photograph image being converted from a grey-scale image, or an image representing grey tones, into a dithered bi-level image (see column 8, lines 16-26), such conversion from grey tones to dithered bi-level values inherently comprising a, "pre-determined threshold value array" for judging which grey tones should be set to black or white dots in the bi-level image.

In reference to claims 2 and 4, Kisor et al. discloses all of the claim limitations as applied to claims 1 and 3 respectively above. Kisor et al. also discloses decompressing the compressed block pixel count data file utilizing pattern sets which represent the 256 different ways in which the human eye can perceive the shades of gray (see columns 10-11, lines 43-34). Note, the

Office interprets such patterns of Kisor et al. functionally equivalent to the reference tiles since such patterns represent all possible regular viewing of gray colors by the human eye. Kisor et al. further discloses matching a pattern with a block of pixels using the block pixel count number and the same number of black pixels in the pattern (see column 11, lines 35-55), more specifically selecting the correct block pixel pattern of the pattern sets having the same or substantially the same numbers of black pixels defined by the numbers in the block pixel count file (see column 6, lines 39-44). Note, the Office interprets that in order for Kisor et al. to "select" the correct pixel pattern from the pattern sets, some sort of comparison or "test" between the number of black pixels in the pixel pattern and block pixel count file is inherently performed. Further note, even though Kisor et al. may state that the patterns are randomly selected (see column 6, lines 39-40), it is further found that Kisor et al. explicitly discloses that they are "randomly selected...in accordance with said numbers in said block pixel count file," (see column 6, lines 40-43).

In reference to claims 5 and 7, Kisor et al. discloses all of the claim limitations as applied to claim 3 above. Kisor et al. also discloses decompressing the compressed block pixel count data file utilizing pattern sets which represent the 256 different ways in which the human eye can perceive the shades of gray (see columns 10-11, lines 43-34). Note, the Office interprets such patterns of Kisor et al. functionally equivalent to the reference tiles since such patterns represent all possible regular viewing of gray colors by the human eye. Kisor et al. further discloses matching a pattern with a block of pixels using the block pixel count number and the same number of black pixels in the pattern (see column 11, lines 35-55), more specifically selecting the correct block pixel pattern of the pattern sets having the same or substantially the same

numbers of black pixels defined by the numbers in the block pixel count file (see column 6, lines 39-44). Note, the Office interprets that in order for Kisor et al. to "select" the correct pixel pattern from the pattern sets, some sort of comparison or "test" between the number of black pixels in the pixel pattern and block pixel count file is inherently performed. Further note, even though Kisor et al. may state that the patterns are randomly selected (see column 6, lines 39-40), it is further found that Kisor et al. explicitly discloses that they are "randomly selected...in accordance with said numbers in said block pixel count file," (see column 6, lines 40-43). Kisor et al. also discloses that patterns are represented using grey levels indicated by the number of black pixels, the number of black pixels referring to the dithered bi-level image (see columns 10-11, lines 50-8). Kisor et al. also discloses for a 4x4 pixel block, there are 16 different patterns produced (see #110 of Figure 5).

Response to Arguments

2. Applicant's arguments filed 10/18/06 have been fully considered but they are not persuasive.

In reference to claims 1-5, 7 and 8, Applicant argues that the Kisor et al. prior art reference does not teach the "comparing" and "identifying" steps of the claims (see pages 7-8 of Applicant's Remarks). The Office disagrees.

Firstly, the Office restates the above interpretation of Kisor et al. The Office states that the number of black pixels of Kisor et al. equivalent to the "marked pixel count M" and the blocks of pixels of Kisor et al. equivalent to the "plurality of N-pixel tiles" of Applicant's claims. Further, Kisor et al. discloses matching a pattern with a block of pixels using the block pixel

count number and the same number of black pixels in the pattern (see column 11, lines 35-55), more specifically selecting the correct block pixel pattern of the pattern sets having the same or substantially the same numbers of black pixels defined by the numbers in the block pixel count file (see column 6, lines 39-44). As argued by the Applicant, the Office further states that in order for Kisor et al. to obtain a matching pattern with a block of pixels, some sort of "test" or "comparison" must have been made. Applicant specifically argues that the claims call for comparing "pixel tiles" (see 2nd paragraph, page 8 of Applicant's Remarks) and that Kisor et al. actually compares pixel counts, "...which does not address the claimed recitation of comparing an N-pixel tile..." (see 2nd paragraph, page 8 of Applicant's Remarks). The Office points out that although Kisor et al. may compare pixel counts, the Office has equated the number of black pixels to the "marked pixel count M" which are further comprised within the blocks of pixels in Kisor et al. (plurality of N-pixel tiles of the claims). Therefore, since the blocks of pixels or plurality of N-pixel tiles comprise the number of black pixels or pixel count, the Office broadly interprets the claim language so that Kisor et al. inherently discloses the limitation of "comparing" or "testing" the N-pixel tiles to a corresponding N-pixel reference tile.

Lastly, Kisor et al. discloses matching a pattern with a block of pixels using the block pixel count number and the same number of black pixels in the pattern (see column 11, lines 35-55). Therefore, if a match is made in Kisor et al., it can and is interpreted that the elements that are matched are "identified" as a match and therefore comprise corresponding portions of half-toned pixel data. As a result, the Office maintains its current rejection based upon Kisor et al.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:00 AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung, can be reached at (571) 272-7794.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

571-273-8300 (Central Fax)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (571) 272-2600.

aac

12/21/06

Antonio Caschera
Patent Examiner

KEE M. TUNG
SUPERVISORY PATENT EXAMINER